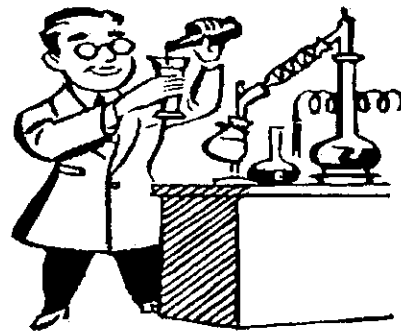


Signs of a Chemical Reaction

Introduction: Chemistry is the study of how substances react to form new substances with new properties. During the course of a reaction, we often see signs, often visual clues, that a chemical reaction has taken place. By noting these signs, we provide a record that is useful for comparison with some one else. The purpose of today's exercise is to combine chemicals and observe the changes that occur.



Directions: For each station, follow the directions at that station. Then draw a diagram and write a brief word description of the chemical changes you observed.

Station 1

Zinc + hydrochloric acid \rightarrow



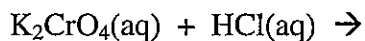
Diagram

Observations: _____

Evidence of chemical reaction: _____

Station 2

Potassium chromate + hydrochloric acid \rightarrow



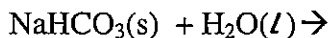
Diagram

Observations: _____

Evidence of chemical reaction: _____

Station 3

Baking soda + water \rightarrow



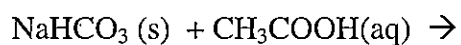
Diagram

Observations: _____

Evidence of chemical reaction: _____

Station 4

Baking Soda + vinegar \rightarrow

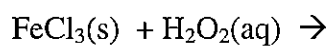


Diagram

Observations: _____

Evidence of chemical reaction: _____

Station 5

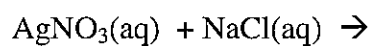


Diagram

Observations: _____

Evidence of chemical reaction: _____

Station 6

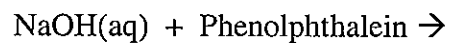


Diagram

Observations: _____

Evidence of chemical reaction: _____

Station 7

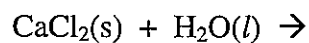


Diagram

Observations: _____

Evidence of chemical reaction: _____

Station 8

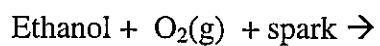


Diagram

Observations: _____

Evidence of chemical reaction: _____

Station 9

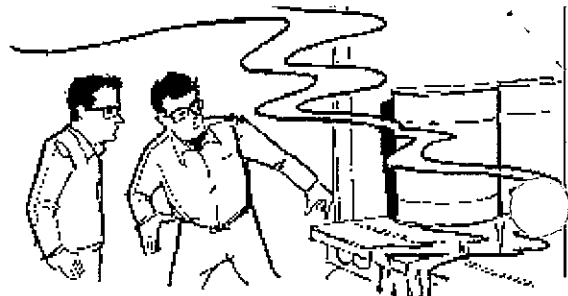


Diagram

Observations: _____

Evidence of chemical reaction: _____

Questions



1. Safety:
 - a. When can you eat food or drink anything in a chemistry classroom?

 - b. If an accident occurs, what should you do?

 - c. What should you do if you spill a chemical or a solution?

 - d. Many chemicals are toxic. The best way to smell chemicals safely is to:

 - e. When should you wash your hands?

 - f. When must you close the vents on the goggles?

2. List the five signs below that a chemical reaction may have occurred and circle the one sign that always indicates a chemical reaction has occurred.

○

 - a. _____
 - b. _____
 - c. _____
 - d. _____
 - e. _____
3. When wood burns, this is a chemical reaction. List below all the observations that indicate a chemical reaction has occurred. (There are more lines than most students will need).
 - a. _____
 - b. _____
 - c. _____
 - e. _____
 - f. _____
 - g. _____
 - h. _____

○